



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,193	07/24/2001	Michael G. Spiegel	POU920010077US1	5682
7590 06/01/2005			EXAMINER	
IBM Corporation 2455 South Road M/S P386 Poughkeepsie, NY 12601			TANG, KENNETH	
			ART UNIT	PAPER NUMBER
			2195	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,193

Applicant(s)

SPIEGEL ET AL.

Examiner

Kenneth Tang

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This final action is in response to the Amendment filed on 2/7/05. Applicant's arguments have been fully considered but were not found to be persuasive.
2. Claims 1-20 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9-12, 15-16, and 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

- a. In claim 9, "an operator" (line 4) is indefinite because it is not made explicitly clear in the claim language whether this is operator is a user or a computer. In addition, it is uncertain whether a computer is even involved because the claim language has not been written to be anything tangible.
- b. Claims 15-16 and 19-20 are rejected for the same reasons as stated in the rejection of claim 9 above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2195

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 9-12, 16, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ranganathan (US 2002/0147759 A1).

5. As to claim 9, Ranganathan teaches in an information handling system (adaptive resource utilization apparatus) in which a plurality of processes executing on said system are utilizing a resource (*see Abstract*), a method for managing said resource comprising the steps of:

receiving an external command from an operator (instructions from peripheral devices or processor or user via user interface) for the display (output on display device, Fig. 6, items 650 and 660) of the current utilization (costing coefficient is the percentage of resource utilization) of said resource by a specified one of said plurality of processes (*page 5, [0052] and page 2, [0022]*);

in response to said external command, generating a display (output on display device, Fig. 6, items 650 and 660) of the current utilization of said resource (costing coefficient is the percentage of resource utilization) by said specified one of said plurality of processes (*page 5, [0052] and page 2, [0022]*).

6. As to claim 10, Ranganathan teaches in which said plurality of processes utilize a plurality of resources, said display showing the current utilization of each of said resources by said specified one of said plurality of processes (*page 5, [0052] and page 2, [0022], page 1, [0008]*)).

7. As to claim 11, Ranganathan teaches in which said display also shows a predetermined maximum utilization that is set for said resource (*page 5, [0052] and page 2, [0022] and [0027]*).

8. As to claim 12, Ranganathan teaches in which said display also shows a maximum (100%) actual utilization (costing coefficient represents percentage of resource utilization) of said resource over a predetermined period (*defined time period, also referred to as costing interval*) (*page 2, [0022]*).

9. As to claim 16, it is rejected for the same reasons as stated in the rejection of claim 9.

10. As to claim 20, it is rejected for the same reasons as stated in the rejection of claim 9.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-7, 13-14, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ranganathan (US 2002/0147759 A1) in view of Sim (US 2002/0083118 A1).

12. As to claim 1, Ranganathan teaches in an information handling system (adaptive resource utilization apparatus) in which one or more processes executing on said system are utilizing a resource (*see Abstract*), a method for managing said resource comprising the steps of:

determining a current utilization of said resource (costing coefficient represents percentage of resource utilization) (*page 2, [0022]*);

comparing (using percentages to compare current utilization to the max utilization) said current utilization of said resource with a predetermined maximum utilization (100%) that is set for said resource (*page 2, [0022]*); and

generating a message (notification) if said current utilization of said resource reaches a threshold relative to said predetermined maximum utilization (100%) that is set (costing coefficient represents percentage of resource utilization) for said resource (*page 6, [0060], page 2, [0020]*).

13. Ranganathan teaches automatically and dynamically generating a message (notifying) based on utilization of the resource as needed. Ranganathan fails to explicitly teach that the threshold is predetermined. However, Sim teaches notifying when predetermined user-defined resource-usage thresholds have been satisfied (*page 20, [0206]*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the feature of

Art Unit: 2195

predetermined thresholds to the existing notification system of Ranganathan because this gives the user the power to decide whether to send a notification (*page 20, [0206]*).

14. As to claim 2, Ranganathan (*page 2, [0019]*) and Sim (*page 20, [0206]*) teaches in which said current utilization and said predetermined maximum utilization are determined for the system as a whole.

15. As to claim 3, Ranganathan (*page 2, [0019]*) and Sim (*page 20, [0206]*) teaches in which said current utilization and said predetermined maximum utilization are determined for a particular process executing on said system.

16. As to claim 4, Ranganathan (*page 2, [0019]*) and Sim (*page 20, [0206]*) teaches in which said message is generated if said current utilization of said resource reaches a predetermined action of said predetermined maximum utilization that is set for said resource.

17. As to claim 5, Ranganathan (*page 2, [0019]*) and Sim (*page 20, [0206]*) teaches in which a message is generated if said current utilization of said resource reaches any one of a plurality of predetermined thresholds relative to said predetermined maximum utilization that is set for said resource.

18. As to claims 6 and 7, Ranganathan teaches generating a display of current utilization of the resource (output on display device, Fig. 6, items 650 and 660) (*page 5, [0005]*).

Art Unit: 2195

Ranganathan fails to explicitly teach selecting one of a plurality of display modes, by operator command, in which different subsets of messages are displayed. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the feature of selecting one of a plurality of display modes, by operator command, in which different subsets of messages are displayed to Ranganathan's display device because this would provide with more organization and control.

19. As to claims 13-14, they are rejected for the same reasons as stated in the rejection of claims 1 and 6.

20. As to claims 17-18, they are rejected for the same reasons as stated in the rejection of claims 1 and 14.

21. **Claims 8, 15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ranganathan (US 2002/0147759 A1) in view of Anbiah et al. (hereinafter Anbiah) (US 6,690,671 B1).**

22. As to claim 8, Ranganathan teaches in an information handling system (adaptive resource utilization apparatus) in which a plurality of processes executing on said system are utilizing a resource (*see Abstract*), a method for managing said resource comprising the steps of:

Art Unit: 2195

receiving an external command from an operator (instructions from peripheral devices, processor or user via user interface) specifying a maximum utilization (costing coefficient of 100% is a costing metric of usage of resources) of said resource by a specified one of said plurality of processes (*page 5, [0052], page 2, [0022]*); and

in response to said command independently (independent thread within the costing subsystem engine) of any other of said plurality of processes executing on said system (*page 4, [0043]*).

23. Ranganathan fails to explicitly teach setting said maximum utilization of said resource by said specified one of said plurality of processes as specified by said command. Anbiah teaches a plurality of processes of a load balancing routing module that sets the resource with maximum utilization in order to obtain efficient load balancing and to minimize congestion (*col. 4, lines 26-40 and col. 1, lines 23-25*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the feature of setting said maximum utilization of said resource by said specified one of said plurality of processes as specified by said command to Ranganathan's adaptive resource utilization apparatus in order to obtain the advantages of Anblah's teachings mentioned above.

24. As to claim 15, it is rejected for the same reasons as stated in the rejection of claim 8.

25. As to claim 19, it is rejected for the same reasons as stated in the rejection of claim 8.

Response to Arguments

26. During patent examination, the pending claims must be “given their broadest reasonable interpretation consistent with the specification.” *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

27. *Applicant argues on pages 7-8 of the Remarks that Ranganathan does not teach a display of resource utilization. Applicant admits that Ranganathan discloses a display adaptor 650 and a display device 660 but argue that this does not teach displaying resource utilization.*

In response, Ranganathan teaches displaying resource utilization from the feedback mechanism described in page 1, [0009]. This is not possible without the display adaptor 650 and the display device 660.

28. *Applicant argues on page 8 of the Remarks that the origination of a command is from an operator and that Ranganathan's peripheral devices cannot be an operator.*

In response, the Examiner respectfully disagrees. The broadest reasonable interpretation of an operator can include a person (a user), a computer (operating system), or a device (that provide operating instructions like an operating system), for example. The broadest reasonable interpretation of the claim language does not limit it any further than this. Nevertheless, in the cited portion of Ranganathan, it discloses an operator from a peripheral device, from a processor, or from a user by having a user interface on page 5, paragraph [0052].

29. *Applicant argues on page 8 of the Remarks that about the only commonality between Ranganathan's system and the applicant's claimed system is that both deal in some manner with performance metrics.*

In response, Ranganathan shares a great deal of commonality with the Applicant's invention. Ranganathan teaches an information handling system (adaptive resource utilization apparatus) in which a plurality of processes executing on said system are utilizing a resource (*see Abstract*), which manages resources by receiving an external command (instructions from peripheral devices) for the display (feedback mechanism gives output on display device, Fig. 6, items 650 and 660) of the current utilization (costing coefficient is the percentage of resource utilization) of said resource by a specified one of said plurality of processes (*page 5, [0052] and page 2, [0022]*); in response to said command, generating a display (feedback mechanism gives output on display device, Fig. 6, items 650 and 660) of the current utilization of said resource (costing coefficient is the percentage of resource utilization) by said specified one of said plurality of processes (*page 5, [0052] and page 2, [0022]*). Ranganathan and the Applicant's invention is in the same field of endeavor of information handling system for managing resource utilization, for example.

30. *Applicant argues on page 9-10 of the Remarks that Sim does not teach a predetermined maximum that is set for the resource, and a message is generated if the current utilization reached a predetermined threshold relative to that maximum.*

In response, the Applicant is attacking references individually. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231

Art Unit: 2195

USPQ 375 (Fed. Cir. 1986). Sim is only relied on with respects to the rejection to merely illustrate that thresholds can be predetermined. Ranganathan teaches in an information handling system (adaptive resource utilization apparatus) in which a plurality of processes executing on said system are utilizing a resource (*see Abstract*), a method for managing said resource comprising the steps of receiving an external command (instructions from peripheral devices) for the display (output on display device, Fig. 6, items 650 and 660) of the current utilization (costing coefficient is the percentage of resource utilization) of said resource by a specified one of said plurality of processes (*page 5, [0052] and page 2, [0022]*); in response to said command, generating a display (output on display device, Fig. 6, items 650 and 660) of the current utilization of said resource (costing coefficient is the percentage of resource utilization) by said specified one of said plurality of processes (*page 5, [0052] and page 2, [0022]*). Ranganathan teaches automatically and dynamically generating a message (notifying) based on utilization of the resource as needed. In Ranganathan, a maximum resource utilization is when the costing coefficient is at 100% or a total of 1 (*page 2, [0022]*). Ranganathan discloses that “costing” may refer to memory (resource) utilization (*page 2, [0019]*). As far as a threshold being relative to the maximum utilization – the claim language does not explicitly claim how it is relative to the maximum. The broadest reasonable interpretation results in anything and everything as being relative to a maximum utilization. For example, .5 is relative to 1, or 80% is relative to 100%, etc.

31. *Applicant argues on page 11 of the Remarks that Anbiah does not teach a maximum utilization of a resource being set, nor is an external operator command involved, nor is the utilization of the resource by a specified process taught.*

32. Again, Applicant is attacking the references individually. Ranganathan teaches in an information handling system (adaptive resource utilization apparatus) in which a plurality of processes executing on said system are utilizing a resource (*see Abstract*), a method for managing said resource comprising the steps of receiving an external command from an operator (instructions from peripheral devices, processor or user via user interface) specifying a maximum utilization (costing coefficient of 100% is a costing metric of usage of resources) of said resource by a specified one of said plurality of processes (*page 5, [0052], page 2, [0022]*); and in response to said command independently (independent thread within the costing subsystem engine) of any other of said plurality of processes executing on said system (*page 4, [0043]*). Ranganathan fails to explicitly teach setting said maximum utilization of said resource by said specified one of said plurality of processes as specified by said command. Anbiah teaches a plurality of processes of a load balancing routing module that sets the resource with maximum utilization in order to obtain efficient load balancing and to minimize congestion (*col. 4, lines 26-40 and col. 1, lines 23-25*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the feature of setting said maximum utilization of said resource by said specified one of said plurality of processes as specified by said command to Ranganathan's adaptive resource utilization apparatus in order to obtain the advantages of Anblah's teachings mentioned above. In addition, Ranganathan teaches a maximum utilization of resources as being set at 1 or 100% (as mentioned in the above response to argument). The broadest reasonable interpretation of an external command from an operator can include a command or instruction from a person (a user), a computer (operating system), or a device (that provide operating instructions like an operating system), for example. The broadest reasonable

Art Unit: 2195

interpretation of the claim language does not limit it any further than this. Nevertheless, in the cited portion of Ranganathan, it discloses an operator from a peripheral device, from a processor, or from a user by having a user interface on page 5, paragraph [0052]. Furthermore, Ranganathan teaches the costing process as a specific process for utilization of resources (*page 2, [0019]-[0022]*).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

Art Unit: 2195

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt
5/25/05


MENG-AI T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100